

## Abstract

The invention relates to an ultrasonic flow measuring device (1), which is distinguished by a low energy consumption. According to the invention, a control/evaluation unit (11) ascertains a plurality of sampled values ( $a_i$  with  $i = 1, 2, 3, \dots$ ) of a received measuring signal at defined points in time (t) of a predetermined time range and interpolates the sampled values by a continuous function (f(t)), wherein the continuous function (f(t)) is formed by a sum of a predetermined number ( $n \in \mathbb{N}$ ) of wavelets (W) and wherein each wavelet (W) corresponds to the product of a sampled value with a sinc function ( $\frac{\sin(x)}{x}$ ) and with a Gaussian bell curve ( $e^{-\alpha x^2}$ ,  $\alpha \in \mathbb{R}$ ).